

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU03/00266**A. CLASSIFICATION OF SUBJECT MATTER**Int. Cl. ⁷: G01N 33/15, 33/92; A61K 35/12, 45/06; C12Q 01/00; A61P 29/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G01N 33/15, 33/92; A61K 35/12, 45/06, 49/00; C12Q 01/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPAT, JAPIO, CAPlus, Medline (antiinflammator*; emu oil; t-cell/macrophage/neutrophil/cell line/t-lymphocyte; in vivo; in vitro; assay/screen/measure/test; swell*)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Winter C.A. et al., (1962) <i>Proc. Soc. Exp. Biol. Med.</i> , vol. 111, pp. 544-547. "Carrageenin-induced edema in hind paw of the rat as an assay for antiinflammatory drugs". Whole document.	1, 3-8, 14, 15
X	Snowden J.M. and Whitehouse M.W. (1997) <i>Inflammopharmacology</i> , vol. 5, pp. 127-132. "Anti-inflammatory activity of emu oils in rats". Whole document.	1, 3-8, 14, 15
X	Hart, P.H. et al., (2000) <i>Inflammation Research</i> , vol. 49, pp. 619-626. "Terpinen-4-ol, the main component of the essential oil of <i>Melaleuca alternifolia</i> (tea tree oil), suppresses inflammatory mediator production by activated human monocytes". Whole document.	1-4, 6-11, 14, 15

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

10 June 2003

Date of mailing of the international search report

17 JUN 2003

Name and mailing address of the ISA/AU

AUSTRALIAN PATENT OFFICE
PO BOX 200, WODEN ACT 2606, AUSTRALIA
E-mail address: pct@ipaustalia.gov.au
Facsimile No. (02) 6285 3929

Authorized officer

JULIE GALE

Telephone No : (02) 6283 2272

INTERNATIONAL SEARCH REPORT

International application No. .

PCT/AU03/00266

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Lopez A. et al., (1999) <i>Am J Vet Res.</i> , vol. 60, pp. 1558-1561. "Effect of emu oil on auricular inflammation induced with croton oil in mice". Whole document.	1, 3-8, 14, 15
X	Whitehouse M.W. et al., (1998) <i>Inflammopharmacology</i> , vol. 6, pp. 1-8. "Emu oil(s): A source of non-toxic transdermal anti-inflammatory agents in aboriginal medicine". Whole document.	1, 3-8, 14, 15
X	Asuzu I.U. et al., (1999) <i>Phytomedicine</i> , vol. 6(4), pp. 267-272. "The antiinflammatory activity of <i>Icacina trichantha</i> tuber". Whole document.	1, 3, 4, 6-8, 14, 15
X	WO 92/08470 A1 (EMU PRODUCTS WESTERN AUSTRALIA PTY LTD) 29 May 1992 Whole document.	1, 3-8, 14, 15
X	US 6,346,278 B1 (Macrides et al.) 12 February 2002. Whole document.	1, 3-8, 14, 15
P,X	US 2003/0031724 A1 (Orthoefer et al.) 13 February 2003. Whole document.	1-6, 8, 10, 11, 14, 15

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/00266

Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos : 26
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
The scope of claim 26 is so uncertain and broad that no meaningful search could be conducted on the subject matter.
3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See supplementary sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
The search is restricted to the invention as claimed in claims 1-15.

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/00266

Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: II

This International Searching Authority considers that there are multiple inventions and the claims therefore lack unity of invention:

1. Claims 1-15 relate to assays for grading a substance so as to assess its anti-inflammatory activity. The assay can either be an *in vivo* screening assay or an *in vitro* screening assay. The assay as a whole can be regarded as representing a first "special technical feature".
2. Claims 16-20 relate to a pharmaceutical composition comprising emu oil or a biologically active extract or component thereof. Emu oil is a well known oil and it has various uses. The composition as claimed in claim 16 is not limited to use in treatment or amelioration of the symptoms of T-cell mediated disease or neutrophil mediated disease in a mammal. As emu oil is well known there is no "special technical feature" in claim 16 which could distinguish the composition from the prior art.

Claims 21-25 relate to a method of treating or ameliorating the symptoms of a T-cell mediated disease or a neutrophil mediated disease in a mammal by administering emu oil. Claims 30 and 31 relate to the preparation of emu oil by heating the oil to a temperature of at least 40°C. A second "special technical feature" can be regarded as the preparation of emu oil for therapeutic use and a method of therapeutic use of emu oil.
3. Claims 26*-29 relate to the use of an organic solvent to extract compounds having anti-inflammatory activity from a biologically active oil or fat wherein the organic solvent may be an alcohol. This represents a third "special technical feature".

The claims are not linked by a special technical feature which is common to all independent claims nor is there evidence that the claims relate to the same inventive concept. Since the above-mentioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions (as defined in PCT rule 13.2) does not exist.

* It is to be noted that claim 26 is considered by this International Searching Authority to be unsearchable. The scope of this particular claim is so broad that any search would be uneconomic. The claim encompasses the use of any organic solvent to extract compounds from any biologically active oil or fat, the extracted compounds having an anti-inflammatory property.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU03/00266

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
WO 9208470		AU 89452/91		CA 2096242		EP 560806	
		US 5431924					
US 6346278		AU 68656/96		CA 2231803		EP 850068	
		US 6083536		WO 9709992		ZA 9607626	
END OF ANNEX							